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RANDEL SALES COMPANY

12550 LAKE AVENUE • SUITE 1311 • LAKEWOOD, OHIO 44107
Phone (216) 221-1763
FAX (216) 967-2822

RECEIVED
MAR 26 1997
CANTON DROP FORGE

MARCH 25, 1997

MR. KEITH HOUSEKNEHT
CANTON DROP FORGE
P.O. BOX 6902
CANTON, OHIO 44706

DEAR KEITH;

IN REFERENCE TO OUR RECENT CONVERSATION, RANDEL SALES AND AMERICA LANDFILL GIVE YOU THE FOLLOWING PRICE QUOTE FOR YOUR CONSIDERATION:

REMOVAL OF BIO-CELL MATERIAL - $21.50/TON TRUCKING AND DISPOSAL

ALL TAXES ARE INCLUDED IN COST.

THANK YOU FOR YOUR TIME AND CONSIDERATION.

SINCERELY,

Randy Ingram
RANDY INGRAM
PRESIDENT

CC. BOB LEHMAN

CDF 0008907

2(b)
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RANDEL SALES COMPANY

12550 LAKE AVENUE • SUITE 1311 • LAKEWOOD, OHIO 44107
Phone (216) 221-1763
FAX (216) 967-2822

Mr. Keith Housekneht
Canton Drop Forge
P.O. Box 6902
Canton, Ohio 44706

May 8, 1996

RE: Transportation and Disposal of T.P.H. Contaminated Soil
American Waste Services I.D. # 14210-1

5,50 TRUCKING
14,40 DISPOSAL

Dear Keith:

American Landfill, Inc. and Randel Sales are pleased to quote pricing for transportation and disposal of T.P.H. Contaminated Soil, (non-hazardous) from your project in Canton, Ohio. (Stark Country)

Pricing is as follows:

Transportation & Disposal: $19.90 per ton, which includes current Ohio disposal fees. Any increase in disposal/generation fees will be passed on to customer.

Transportation provided by Envirco Transportation or Berner Trucking.

1) Material deemed to contain liquids may incur additional charges.
2) Liner is included.
3) 22 ton minimum per truck
4) Demurrage Fee: Two hours free at each end and $60.00/hour thereafter.
5) Failure to load scheduled trucks may result in "no load" charges.

Pricing shall be based upon weight tickets generated by certified scales located at the Waynesburg facility of American Landfill, Inc. Payment for services performed shall be made within fifteen (15) days of receipt of invoice, sales taxes, waste disposal taxes and transportation taxes will apply.

These prices are valid for a period of thirty (30) days of receipt of this letter. The above pricing is also subject to approval of this waste at American Landfill, Inc.

If you have any questions, please do not hesitated to contact me at (216) 967-2822, or Mr. Bob Lehman at (216) 856-8800. We look forward to serving your disposal needs.

Sincerely,

Randy Ingram

cc Bob Lehman

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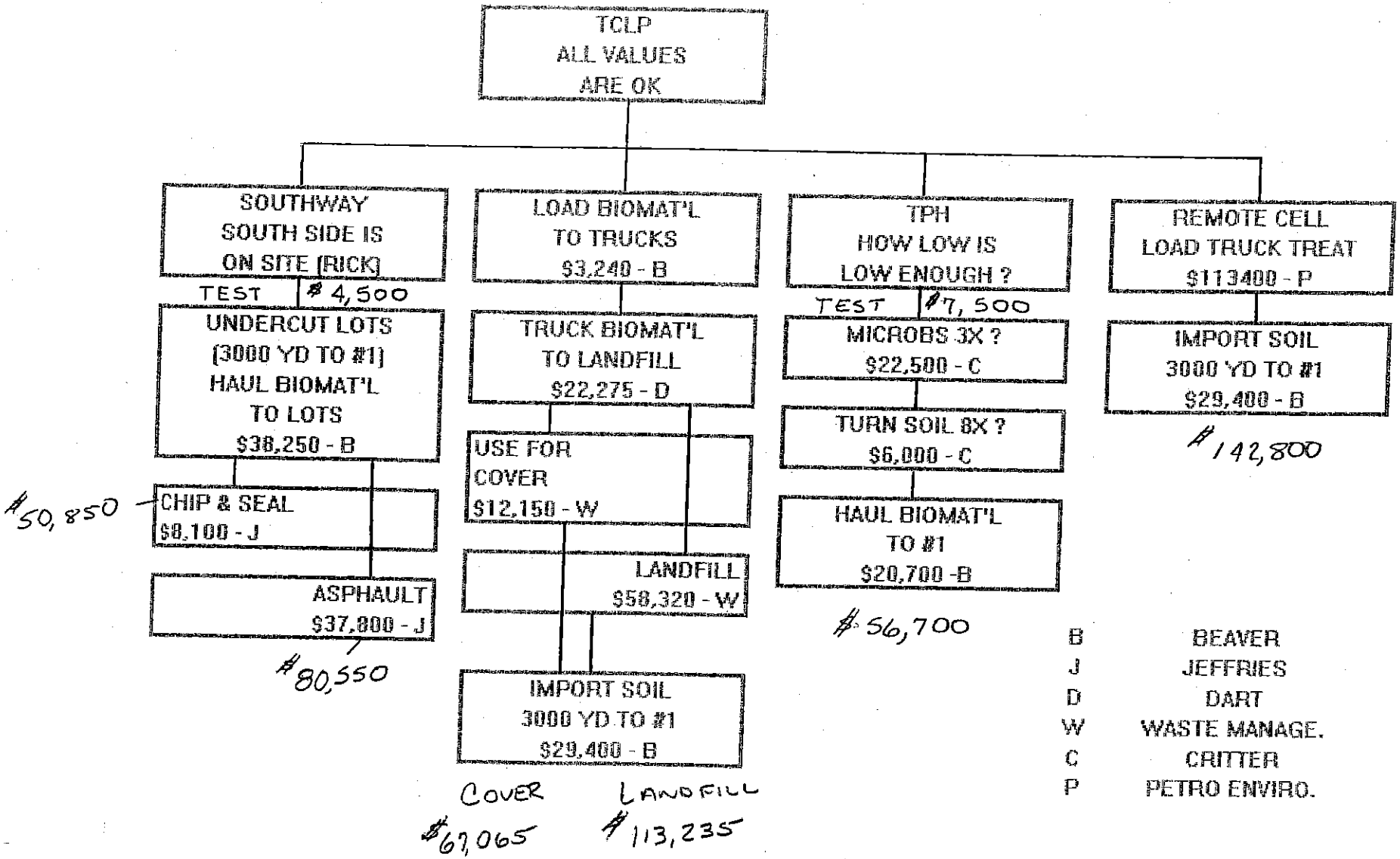
We have 4080 ton on hill
Truck & Dispose - $21.50/ton (Randy 3/25/97)
= $87,075
Load Cell to Trucks = $4,000 (Brandon Kuhles)
Total $91,000

If $2/ton savings of $12/ton ($48,600)
(21.50 Tot. - 5.50 Truck = $14/ton vs $2/ton = $12 Savings)



CDF000896

COLLFLOW.WB1
9/17/96

2 of 3

ZURN Hydromechanics Div.

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6

MEETING 8/8/96

WASTE MANAGEMENT - JOHN NICHOLS
330 945-5151

FILLED OUT WASTE PROFILE FOR
① SCRAPING FROM THE FORGE SHOP FLOOR
② MAT'L FROM CELL

ASKED JOHN TO LOOK AT USING SOIL
MATERIAL FOR CAP ON LANDFILL
MAY CHARGE $2/~~YD~~ TON ? YD ?

IF $2/TON × 12,150 TON = $24,300
LOADER = 9,600
TRUCKING $5.50/TON ? = $66,825
$100,725

TRUCKING IS HIGH
MAYBE $2/ WOULD GO DOWN IF
HE WAS HARD UP FOR COVER MAT'L

J. CURTISS & ASSOCIATES
524 Parkway View Drive
Pittsburgh, PA 15205
Phone: 412/788-1550
Fax: 412/788-1555

CANTON DROP FORGE, INC.

Miscellaneous Status Reports

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Remediation (Audit Action Plan)

The yard separator system is operational and continues to be used to treat effluent from the plant proper prior to discharge into lagoon 2. Operational problems relating to the high viscosity and tackiness of the oil and grease continue to be experienced, but are being dealt with by the contractor (Workman) and CDF personnel.

A plan for a step-by-step study of a boiler house separator system has been developed and is being implemented. The prototype system includes modification of the current steam:water/oil separator unit in the exhaust steam line to improve efficiency, installation of a separator tank to remove non-emulsified oil from the water:oil effluent and characterization (volume and concentration) of the discharge emulsified oil:water effluent from the separator tank so that an appropriately designed final process unit, such as a coalescent filter, can be installed.

Bioremediation of material from lagoon 1 continues to be delayed by Critter's contract default and associated legal suits. Negotiations are underway to try to resolve this matter outside the court system. Simultaneously, alternate methods of dealing with the hydrocarbon contaminated soil have been and continued to be explored including:

(1) bioremediation on site by a firm other than Critter,
(2) using the contaminated soil as a base for asphalt produced by either hot or cold methods,
(3) trucking the soil to an outside source for bioremediation,
(4) partial-bioremediation of the soil and then using it for backfill of lagoon 1 after the lagoon has been lined with a plastic and/or clay layer to prevent leaching of hydrocarbons to surrounding soil or water and — w or w/o LINER
(5) trucking the soil to an outside approved land-fill.

VAP

At this point, bioremediation on site by Critter appears to be the lowest-cost, least-risk approach, but the alternatives are strongly being considered.

OEPA

The consulting firm hired to model SO_2 emissions for various CDF operating levels and combinations of emitting sources has completed their initial work and has provided a report of their study during the past week. The report is being reviewed in order to respond to a past OEPA study that indicated that emissions from CDF can exceed maximum permissible limits under the worst-case scenario used by OEPA in their modeling.

Meanwhile, without our knowledge, OEPA has evidently continued modeling CDF's SO_2 emissions, apparently as part of some modeling of emissions from a nearby source (Ashland Oil). A very recent report OEPA prepared regarding Ashland's model contain references to CDF's emissions exceeding permissible limits even under less than the worst-case scenario. Our legal consultants are planning a response.

China Project

The last release of blades for Shanghai Turbine Works are ready for shipment. We are awaiting a letter of credit and expect it to permit shipment in July.

Capital Projects

Computer-controlled Press/Manipulator

The preforming press continues to run well. However, with GE's low volume and our attempts to operate the forge shop with minimum personnel, some difficulty continues to be experienced in manning it without reducing hammer capacity on an intermittent basis. As experience in producing acceptable preforms on the press continues to grow, as is constantly happening, the manning problem decreases.

Rebuild of 35-1 Hammer

Completion of the 35-1 rebuild has been delayed initially by late delivery of the cylinder and ram from our machining source and now from a problem of match-up of the anvil with the top sub-base. After assembly, a gap of up to 0.100 inches was found to exist at the anvil:sub-base interface even though both surfaces had previously been machined to ensure flatness and full contact over the entire bearing surfaces. Even though the flatness of both surfaces were reportedly checked for flatness after machining, reinspection after disassembly indicates a flatness problem with both surfaces which is now being corrected. We now expect the hammer to be available for service by August 12 or 19, depending on the time required for remachining.

Continuous Heat Treat Furnace

A temperature uniformity survey is now being run on the new heat treat furnace prior to its release for production.

Environmental Solutions

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MVTechnologies, Inc.
2855 W. Market St., Suite 214
Akron, Ohio 44333-4034

e-mail: mvti@aol.com
internet at http://members.aol.com/mvti/mvti.html

(330) 864-7450
Fax (330) 864-8136

October 2, 1996

Sent by fax to 330-477-2046

Mr. Keith Houseknecht, Manager
Plant Engineering
Canton Drop Forge
4575 Southway Street S.W.
P.O. Box 6902
Canton, OH 44706

Dear Mr. Houseknecht:

Thank you once again for the opportunity to submit the following proposal for a suitability study for soil recycling at Canton Drop Forge.

Transforming petroleum contaminated soils into Asphalt Stabilized Road Base (ASRB) can save money and reduce long term "cradle to grave liability" as imposed by the Resource Conservation and Recovery Act (RCRA). ASRB can provide the generator with the an option of reducing the liability of having a solid waste while providing a needful and useful product for the site. In this case, part of the waste stream generated at your facility can be recycled into the ASRB! This technology is time tested and typically is less expensive than landfill disposal.

MVTechnologies, Inc (MVTI) recommends that a Performance Evaluation Test (PET) be performed on the hydrocarbon contaminated soil to determine its suitability for use in asphalt recycling. The testing and resulting analytical data generated by the PET are intended for four specific and significant reasons:

1) To identify and quantify the contamination the contamination in the soil to be recycled to insure that it meets OEPA approval. (The analytical portion has already been completed by Summit Environmental).

2) To determine the level of extractable contaminants in the recycled material so that utilization of the recycled material does not result in the pollution of the waters of the State of Ohio.

3) To verify that the cold-mix recycling process has been effective in stabilizing the contaminants in the soil so that the recycled materials may be reused in the commercial market or at the site of generation without deed recordation, and to demonstrate the acceptability of the recycled material for the proposed end.

4) Establish contaminated soil recycling rate, time and cost.

All recycled materials will be tested to demonstrate that they will meet the appropriate engineering specifications for grain size, moisture content, Plasticity Index (PI), Liquid Limit (LL), California Bearing Ratio (CBR), Flow and/or Marshall Strength. In addition a full TCLP (Volatiles, Semivolatiles, Metals) analysis and a TPH analysis of the recycled materials and the TCLP leachate will be performed on two samples, one before and one after compaction.

MVTI estimates that it will take approximately two months for completion of the study and issuance of the report to the client.

Fees for all services, including test design and set up, sampling, analytical analyses, and report, will be $4,500.00. This fee will be payable in two equal installments upon invoicing from MVTI.

Thank you again for considering MVTI for this project.

Sincerely,

Andrew A. Deikun, C.E.I.

GH10026

CC: Gene Hill

MVTI Environmental Solutions

2(b)
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MVTechnologies, Inc.
2855 W. Market St., Suite 214
Akron, Ohio 44333-4034

e-mail: mvti@aol.com
internet at http://members.aol.com/mvti/mvti.html

(330) 864-7450
Fax (330) 864-8136

September 17, 1996

Sent by fax to 330-499-0149

Mr. Gene Hill
Environmental Engineer
Hammontree and Associates, Ltd.
5233 Stoneham Road
Canton, OH 44720

Post-it® Fax Note 7671	Date 09/17/96	# of pages ▶ 2
To KEITH HOUSEKNECHT	From Andrew DeVon	
Co./Dept. PLANT Engineering	Co. MVTechnologies, Inc	
Phone # 330-477-4511	Phone # 330-864-7450	
Fax # 330-477-2046	Fax # 330-864-8136	

Dear Mr. Hill:

Thank you very much for the opportunity to discuss bioremediation and related consulting services with you and Mr. Keith Houseknecht, and for the site visit to Canton Drop Forge on September 12, 1996.

The soil at the site is heavily contaminated (over 150,000 ppm TPH have been recorded) with high molecular weight hydrocarbons bound cohesively into the soil. This impedes bacteria and fungi movement through the soil and limits accessibility of bacteria to the contaminant. The extremely high TPH levels contribute to the possibility of being toxic to hydrocarbon degrading microorganisms such as *pseudomonas, achromobacter, azotobacter,* and *mycobacterium.* Even though the contaminants are basically biodegradable, the conditions under which they exist can render the compounds persistent and the site recalcitrant to bioremediation. One of the challenges facing the bioremediator is to produce the set of conditions which cause persistent compounds to biodegrade.

The resolution of some of these concerns requires the consideration of which additives would help to (1) break apart of the cohesive soils so that air and bacteria can come in closer contact with more of the contaminant, and (2) oxidize the long chain hydrocarbons so that they biodegrade more easily and rapidly. Further, we don't know the effects of the treatment already attempted. While hydrogen peroxide can be for oxygenation and to "pre-degrade" hydrocarbons, at high concentrations it also can be toxic to microorganisms.

Another important consideration is the seasonal weather changes. We are rapidly approaching the time of year during which bacteria typically decrease their metabolic activity. This can result in slower bioremediation rates. As you know, bioremediation is not a science where one can take a treatment method used on one site and replicate it identically with the same success on another. In fact, it is experience that suggests we take the approach we are recommending in this letter. We strongly believe this approach to be in the best interest of the client.

We recommend the formulation of a site specific bioremediation technique with which we can expect success in a reasonable period of time. This can best be done by performing a lab based treatability

study during the winter months from which results and evaluation would be available by March 1997. This study would allow us to determine the most efficient way to treat this site by evaluating which combination of amendments would work best, and to develop the cost and time of remediation. The client would have the confidence that the most efficient bioremediation technique has been developed and will be utilized for this specific site.

Under our proposal, a six-month treatability study would be performed on mini-piles in the lab. We recommend at least seven combinations of amendments and treatment methods along with a control (untreated) mini-pile. Samples from these piles would be taken periodically to assess TPH degradation, bacterial population stimulation, soil characteristics, etc. The resulting analyses would make possible an extrapolation for determination of remediation time.

The following amendments would be considered for their effectiveness in facilitating bioremediation on the specific site material:

Enzymes (oxygenases) Surfactants
Solvent extraction Absorbents
Organic materials Nutrients
Bacterial stimulation (indigenous microorganisms)
Bacterial augmentation (exogenous microorganisms)

All sampling will be replicated at least once and two analyses sets per treatment will be conducted. For the purpose of this study, a Micro-Oxymax respirometer, which continuously monitors oxygen consumption, will be used to measure microbial activity. PAH and TPH levels will be monitored with a HPLC and GC respectively. Sampling would be done weekly in the beginning and the frequency reduced if bioremediation is occurring satisfactorily. In those mini-piles where sampling shows inadequate remediation, changes in treatments may be considered and undertaken.

Fees for all services, including test design and set up, sampling, analytical analyses, and periodic and final report, will be $7,500.00. This fee will be payable in five equal monthly installments upon invoicing from MVTechnologies, Inc.

We believe that this up-front expenditure is well justified prior to asking the client to commit to an expensive on-site treatment which will require some degree of experimentation on site.

Thank you again for considering MVTI for this project.

Sincerely,

Andrew A. Deikun, C.E.I.

GH09176

CC: Keith Houseknecht

ZURN Hydromechanics Div.

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PHOCON 8/9/96

JIM JEFFRIES 454-6103

TPH - NO EFFECT FOR ON SITE USAGE
BTEX - MUST BE LOW

ON SITE
IF YOU CROSS HIGHWAY IT IS NOT ON SITE - ASK ATTORNEY !!

CAN PUT IN BIG HOLE AND COVER W/ CHIP & SEAL OR 1" ASPHALT

IF IT HAS A CLAY BASE CAN'T USE AS CONSTRUCTION MATERIAL

CAN MAKE PARKING LOT ON NORTH SIDE OF SOUTHWAY & CHIP & SEAL OR 1" ASPHALT

J. CURTISS & ASSOCIATES
524 Parkway View Drive
Pittsburgh, PA 15205
Phone: 412/788-1550
Fax: 412/788-1555

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Workman Industrial Services, Inc.

320 Tallmadge Road • Kent, Ohio 44240
Phone (330) 678-7002 • FAX (330) 678-7332

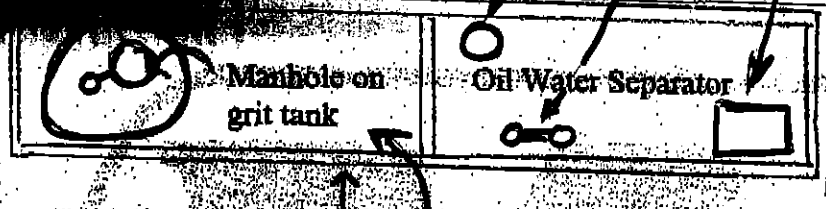
JERRY SHALL I GO AHEAD WITH THIS ? Keith

PROPOSAL: 087
August 2, 1996

Canton Drop Forge
4575 Southway Street S.W.
PO Box 6902
[redacted]902

TELEPHONE: (330)477-4511 Fax (330)477-2046

LOCATION: 4 SKIMMER LOCATION'S
GRIT TANK
OIL STORAGE AREA
COALESCION FILTER AREA
PUMP AREA



Keith

Here is a sketch of what we talked about. We would put a concrete pad between the grit tank manhole and the oil water separator. The pad would have a 4" high curb around it. The oil water separator would get a curb installed around it. The curb would be 1 foot thick with the top being 4" higher than the top of the oil water separator. The curb would be doweled to the separator. We would also core two holes in the lid of the grit tank for the skimmer access. and install a sump pump on the oil resivoir side of the separator as you requested. We would do this free of charge provided Canton Drop Forge pays us the balance and retainage for the work that we have done and billed for.

JERRY - CAN WE COMMIT TO THIS ? THIS SEEMS LIKE A GOOD DEAL TO ME Keith

We Propose Hereby To Furnish Material And Labor Complete In Accordance With The Above Specification For The Sum Of:

yment To Be Made As Follows:

l material is guaranteed to be as specified. All work to be completed in a orkmanlike manner according to standard practices. Any alteration or viation from above specifications involving extra costs will be executed only on written orders, and will become an extra charge over and above the timate. All agreements contingent upon strikes, accidents or delays beyond r control. Owner to carry fire, tornado and other necessary insurance. Our orkers are fully covered by Workers' Compensation Insurance.

Authorized Signature: _____

Note: This proposal may be withdrawn by us if not accepted within _____ days.

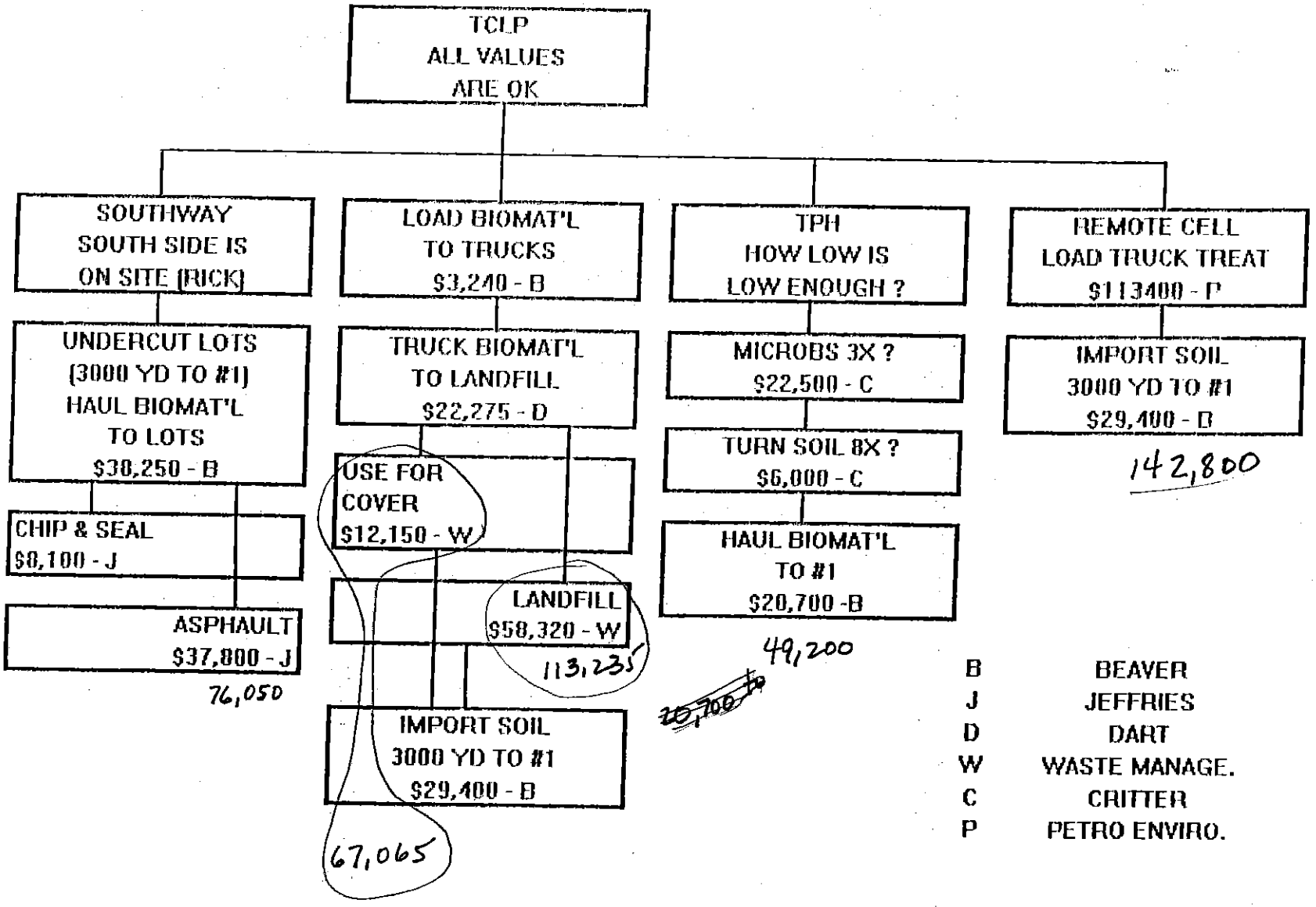
accepted, please sign and return yellow copy. The above prices, ecifications and conditions are satisfactory and hereby accepted.

Signature: _____

CDF000905

Date Of Acceptance: _____

Signature: _____



CDF000906

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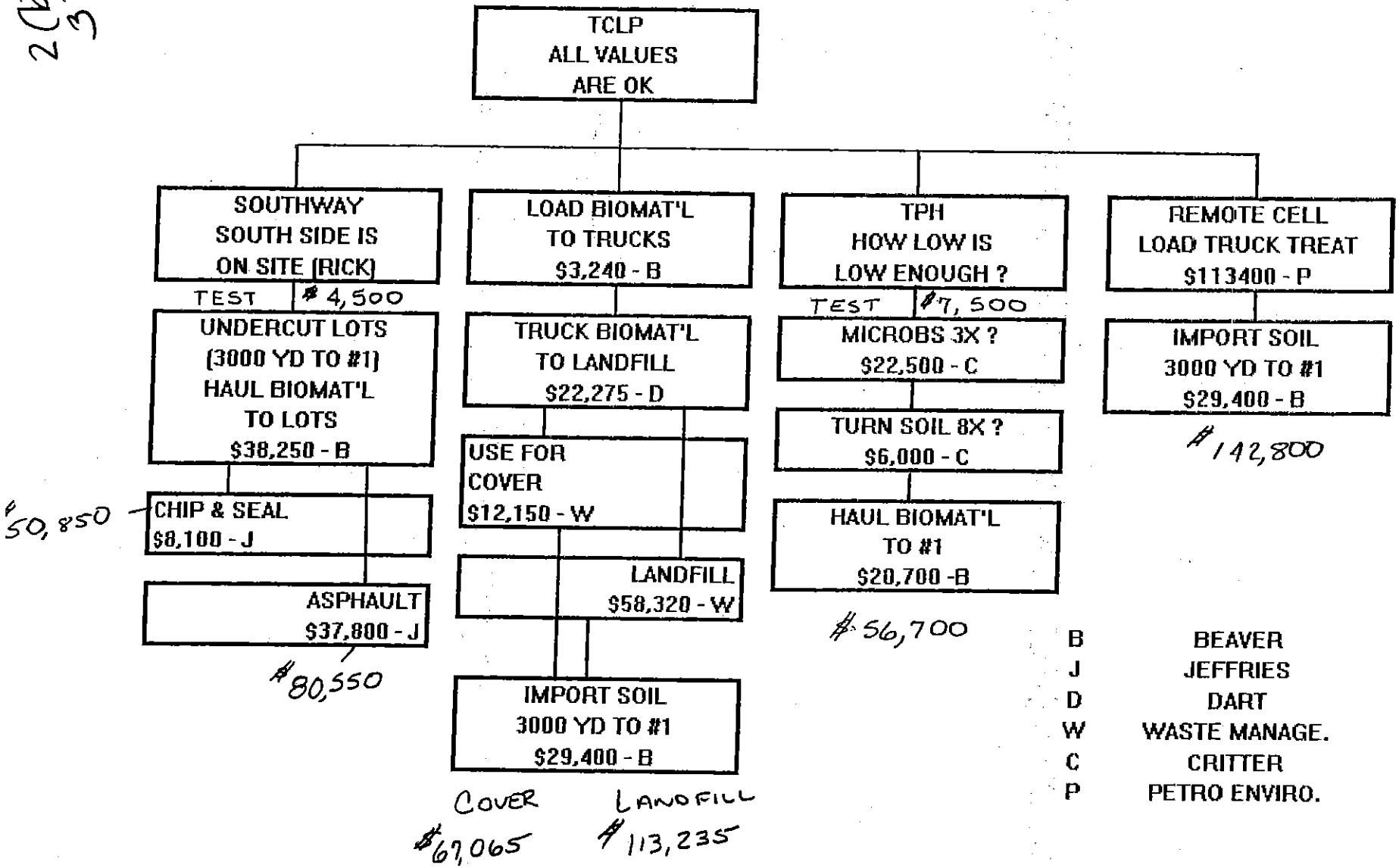
2 of 3



CDF000907

FACSIMILE TRANSMITTAL

2(b) 3

DATE: 12/14/94 **TIME:** 3:00 ( ) A. M. (X) P. M.

TO: NAME: KEITH HOUSEKNECHT
BUSINESS NAME:
FACSIMILE NUMBER: (216) 477-2046

FROM: HAMMONTREE AND ASSOCIATES, LIMITED
5233 STONEHAM ROAD
NORTH CANTON, OHIO 44720

TELEPHONE NUMBERS: (216) 499-8817 CANTON OFFICE
(216) 633-7274 AKRON OFFICE
(216) 499-0149 FACSIMILE

SENDER'S NAME: GENE
PROJECT:
NUMBER OF PAGES (INCLUDING THIS PAGE): 2
BRIEF DESCRIPTION (OPTIONAL):

ADDITIONAL INSTRUCTIONS OR MESSAGES TO RECIPIENT:

KEITH,

THE FOLLOWING IS A SUMMARY OF LAB ANALYSIS LAGOON #1 IN PLACE

7

LAB ANALYSIS SUMMARY

	Sample # / Parameter	W-1	1	4	5	6	Regulatory Limit
MISCELLANEOUS	Reactive Cyanide (ppm)	<0.5	<0.5	<0.5	<0.5	<0.5	
	Reactive Sulfur (ppm)	<25	<25	<25	<25	<25	
	Flash Point (°F)	97	>140	>140	>140	>140	
	pH	6.63	7.31	7.12	7.46	7.67	
	Free Liquid (%)	0	0	0	0	0	
	TPH (418.1) (ppm)	1510	1543	25,557	81,426	105,290	100
	DRO (8015) (ppm)	38	35	216	54	94	
	PCB's (ppm)	<2	<2	<2	<2	<2	
TCLP BNA	Cresols (ppm)	0.10	<0.02	0.13	<0.02	0.07	200
	1, 4-Dichlorobenzene	<0.02	<0.02	<0.02	<0.02	0.03	7.5
	2, 4-Dinitrotoluene	<0.02	<0.02	<0.02	0.04	<0.02	0.13
	Hexachlorobenzene	<0.02	<0.02	<0.02	0.05	0.02	0.13
	Hexachloro-1, 3-butadiene	<0.015	0.50	<.02	0.02	0.08	0.5
	Nitrobenzene	<0.02	<0.02	<0.02	<0.02	0.38	2
	Pentachlorophenol	0.07	0.07	<0.05	<0.05	0.10	100
	Pyridine	<0.05	<0.05	<0.05	<0.05	<.05	5
	2, 4, 5 Trichlorophenol	<0.05	<0.05	<0.05	<0.05	<.05	400
	2, 4, 6 Trichlorophenol	<0.05	<0.05	<0.05	<0.05	<.05	2
	Hexachloroethane	<0.02	<0.02	0.03	<0.02	0.05	3
TCLP VOLATILES	Benzene	<0.05	<0.05	<0.05	<0.05	<0.05	0.5
	Carbon Tetrachloride	<0.05	<0.05	<0.05	<0.05	<0.05	0.5
	Chlorobenzene	<0.05	<0.05	<0.05	<0.05	<0.05	100
	Chloroform	<0.05	<0.05	<0.05	<0.05	<0.05	6
	1, 2-Dichloroethane	<0.05	<0.05	<0.05	<0.05	<0.05	0.5
	1, 1-Dichloroethane	<0.05	<0.05	<0.05	<0.05	<0.05	0.7
	2-Butanone (MEK)	<.5	<.5	<.5	<.5	<.5	200
	Tetrachloroethene	<0.05	<0.05	<0.05	<0.05	<0.05	0.7
	Trichloroethene	<0.05	<0.05	<0.05	<0.05	<0.05	0.5
	Vinyl Chloride	<0.05	<0.05	<0.05	<0.05	<0.05	0.2
TCLP METALS	Silver	<0.01	<0.01	<0.01	<0.01	<0.01	5
	Lead	<0.1	<0.1	<0.1	<0.1	1.0	5
	Cadmium	<.005	<.005	<.005	<.005	<.005	1
	Chromium	<0.05	<0.05	<0.05	<0.05	<0.05	5
	Aersenic	<0.001	0.003	0.008	<0.01	<0.001	5
	Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.2
	Baruim	1.5	<0.1	<0.1	23	15	100
	Selenium	0.0005	0.03	<0.002	<0.002	<0.002	1

Summit Environmental Technologies, Inc.

your connection to a cleaner environment

s.e.t.

July 24, 1995

Mr. Gene G. Hill, E.I.T., M.S.

Hammontree & Associates, LTD
5233 Stoneham Rd.
N. Canton, Ohio 44720

Date Received: 7/19/1995
Date Collected: 7/19/1995
Project #: Critter Co.
Client ID #: See Below
Laboratory ID #: See Below
Matrix: Soil
Analysis: TPH418.1
Date of Analysis: 7/20/1995,7/21/1995
Detection Limit: 10 mg/kg

Lab ID #	Client ID #	Results (mg/kg)	
95709-01	CDF1	98685	AVE 129,231
95709-02	CDF2	101137	
95709-03	CDF3	187872	

Laboratory Manager: Bassam Youssef Bassam Youssef

595 East Tallmadge Avenue; Akron, Ohio 44310 *TEL:* 216.253.8211 *FAX:* 216.253.4489

Environmental Technologies, Inc.
transaction to a cleaner environment

Offices in: Akron, OH; Ft. Wayne, IN; Nashville, TN; New Haven, CT

s.e.t.

August 2, 1995

Mr. Gene G. Hill, E.I.T., M.S.
Hammontree & Associates, LTD
5233 Stoneham Rd.
N. Canton, Ohio 44720

Date Received: 7/25/1995
Date Collected: 7/25/1995
Project #: N/A
Client ID #: See Below
Laboratory ID #: See Below
Matrix: Soil
Analysis: TPH418.1
Date of Analysis: 7/26, 8/1/1995

Parameter	Lab ID #	Client ID #	Detection Limit (mg/kg)	Results (mg/kg)	% Solids	
TPH418.1	CDF-3	95743-01	500	84663	88.00	} 108,568
*TPH418.1	CDF-4	95743-02	500	132473	75.00	

What level is required for 25% reduct?
25% Reduction = .25 (120,586) =
30,147 mg/kg
on levels of
90,439 mg/kg

* This sample is a moderate to highly aromatic oil.

Laboratory Manager: Bassam Youssef

595 East Tallmadge Avenue; Akron, Ohio 44310 TEL: 216.253.8211 FAX: 216.253.4489

Summit Environmental Technologies, Inc.
your connection to a cleaner environment

Offices in: Akron, OH; Ft. Wayne, IN; Nashville, TN; New Haven, CT

S.e.t.

October 5,1995

Mr. Gene G. Hill, E.I.T., M.S.
Hammontree & Associates, LTD
5233 Stoneham Rd.
N. Canton, Ohio 44720

Date Received :10/2/95
Date Collected: 9/29/95
Project #: CDF Lagoon #1
Matrix: Soil
Method: 418.1
Detection Limit: 10 mg/kg
Date Analyzed: 10/4/95

Lab ID #	Client ID #	TPH418.1 (mg/kg)	% Solids
951000-01	BioCell-SW (Dry)	60880	88
951000-02	BioCell-South (Clay Like)	98659	88
951000-03	BioCell-East (Clay Like)	83645	85
951000-04	BioCell-NE Clay	107022	88
951000-05	BioCell-West (Dry)	39375	94

AVE 77,916

Laboratory Manager: Bassam Youssef

595 East Tallmadge Avenue; Akron, Ohio 44310 *TEL:* 216.253.8211 *FAX:* 216.253.4489

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

Recycled paper

2(b)
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WRITTEN FOR SCRAPINGS FROM THE FORGE SHOP FLOOR -- MAY BE SIMILAR FOR BIG CELL

Akron/Canton District

January 30, 1996

Keith Houseknecht
Canton Drop Forge
4575 Southway
Canton, OH. 44706

Dear Mr. Houseknecht:

I hope you are as pleased as I am with the productive nature of our recent discussion concerning alternative waste removal systems and services. Again, let me thank you for sharing your valuable time with me.

BFI Waste Systems is pleased and proud to service many firms such as yours in the area and to share with them concrns for the maintenance of a clean and healthy environment in which to conduct their business.

Providing your waste stream meets all Federal, State, Local and BFI Regulations for non-hazardous waste disposal in Ohio. We will accept this waste at the following rate.

1 - 20 Cubic Yard Open Top Container
Haul Rate: $123.00 per pull includes liner
Disposal: $ 22.00 per ton
Rental:
If more than 2 pulls per month - no charge
If less than 2 pulls per month $90.00 per month

When your unit is full and requires a pickup, contact our Customer Service Center to schedule a pickup. We haul your unit to a OEPA approved landfill within 24 hours, Monday through Friday. Saturday hauls are available on request.

Thank you for your consideration in allowing me to propose these alternative services.

Sincerely,

Lisa Ling

Lisa Ling
Waste Consultant
BFI Waste Systems of Ohio, Inc.

100 #/cuft - EARTH, MOIST, PACKED

$3000\ yd^3 \times \frac{27\ ft^3}{yd^3} \times \frac{100\ \#}{ft^3} \times \frac{1\ Ton}{2000\ \#} = 4050\ Tons$

$\times 22\ \$/Ton$

$\$89,100$
+ TRUCKING

CDF000913

2800 SOUTH ERIE (44646) • P.O. BOX 1167 • MASSILLON, OHIO 44648 • (216) 830-9050 • FAX: (216) 830-8904

PETRO
environmental
technologies

KJH 2(b) 3

April 19, 1996

Mr. Brad Ahbe
Canton Drop Forge
P.O. Box 6902
Canton, OH 44706

RE: Underground Storage Tanks (UST's)

Dear Mr. Ahbe:

If you are planning to remove your underground storage tanks or have removed your tanks and need additional work, Petro Environmental Technologies, Inc. can help. We are an environmental services company that specializes in turnkey UST services, including removal, installation and clean up.

Since 1987, Petro Environmental Technologies has removed and/or installed over 1,000 underground storage tanks. Our customers range in size from Fortune 500 companies like Marathon, Sunoco and Ashland to independent gas station owners. Because we offer a unique blend of construction and consulting services, we can solve virtually any problem resulting from your UST system.

Petro Environmental Technologies also works closely with the Petroleum Underground Storage Tank Release Compensation Board (PUSTRCB). Any clean-up costs associated with your underground storage tanks will get maximum reimbursement. Additionally, we can help submit any cumbersome paperwork to the State.

Mr. Ahbe, if you have a need for any of our services, please fill out the enclosed card and return. If you have any additional questions, you can reach me at (800)767-6330.

Respectfully,

PETRO ENVIRONMENTAL TECHNOLOGIES, INC.

Chris Tucker

Chris Tucker
Account Manager

Enclosure

CDF000914

7851 Palace Drive • Cincinnati, Ohio 45249 • 513.489.6789 • Fax 489.7208
8200 Seville Road • Seville, Ohio 44273 • 330.948.1494 • Fax 948.1933

PETRO
environmental
technologies

2(b)
3

Date: May 3, 1996

Fax #: 216/477-2046

To: Mr. Keith Houseknecht

Company: Canton Drop Forge

From: Christopher Tucker

COMMENTS:

Attached is a sample of our certificate of soil treatment.

CDF000915

7851 Palace Drive • Cincinnati, Ohio 45249 • 513.489.6789 • Fax 489.7208
8200 Seville Road • Seville, Ohio 44273 • 330.948.1494 • Fax 948.1933

PETRO
environmental
technologies

2(b)
3

May 3, 1996

Mr. Keith Houseknecht
Canton Drop Forge
P.O. Box 6902
4575 Southway S.W
Canton, OH 44706

RE: Soil Stockpile
Canton, OH

Dear Mr. Houseknecht,

Thank you for the opportunity to submit this quotation. It is for loading, transporting and treatment of Petroleum Impacted Soil at the Petro Cell. Our prices for the work requested are as follows:

SERVICE	PRICE
Load, transport & treat Petroleum Impacted Soil at the Petro Cell	$28.00/ton

#2 LOAD
#6 TRUCK
#20 TREAT

The soil will be treated until Total Petroleum Hydrocarbon concentrations are below regulatory levels (105ppm).

Mr. Houseknecht, to initiate this project please sign below and forward to my attention. Petro Environmental Technologies, Inc. guarantees that all aspects of the job will be performed with Canton Drop Forge's best interest in mind. I will follow up by phone to answer any questions. Thank you again for this opportunity.

Respectfully Submitted,
Petro Environmental Technologies, Inc.

Christopher Tucker

Christopher Tucker
Regional Sales Manager

Accepted by:_____ Date:_____

CDF000916

7851 Palace Drive • Cincinnati, Ohio 45249 • 513.489.6789 • Fax 489.7208
8200 Seville Road • Seville, Ohio 44273 • 330.948.1494 • Fax 948.1933

PETRO ENVIRONMENTAL TECHNOLOGIES, INC.
PETRO CELL

Certificate of Soil Treatment and Compliance

Petro Environmental Technologies, Inc. certifies that as of May 3, 1996 the petroleum contaminated soil generated at XYZ Corp., at 123 Main Street, in Ripley, OH, under manifest(s) numbered 34418, referenced by Control Number ST6-082, has been treated. The 50.00 tons of soil has reached clean levels according to the standards of the Ohio Environmental Protection Agency and is now non-regulated material. Copies of the confirmatory analytical results are on file and available upon request.

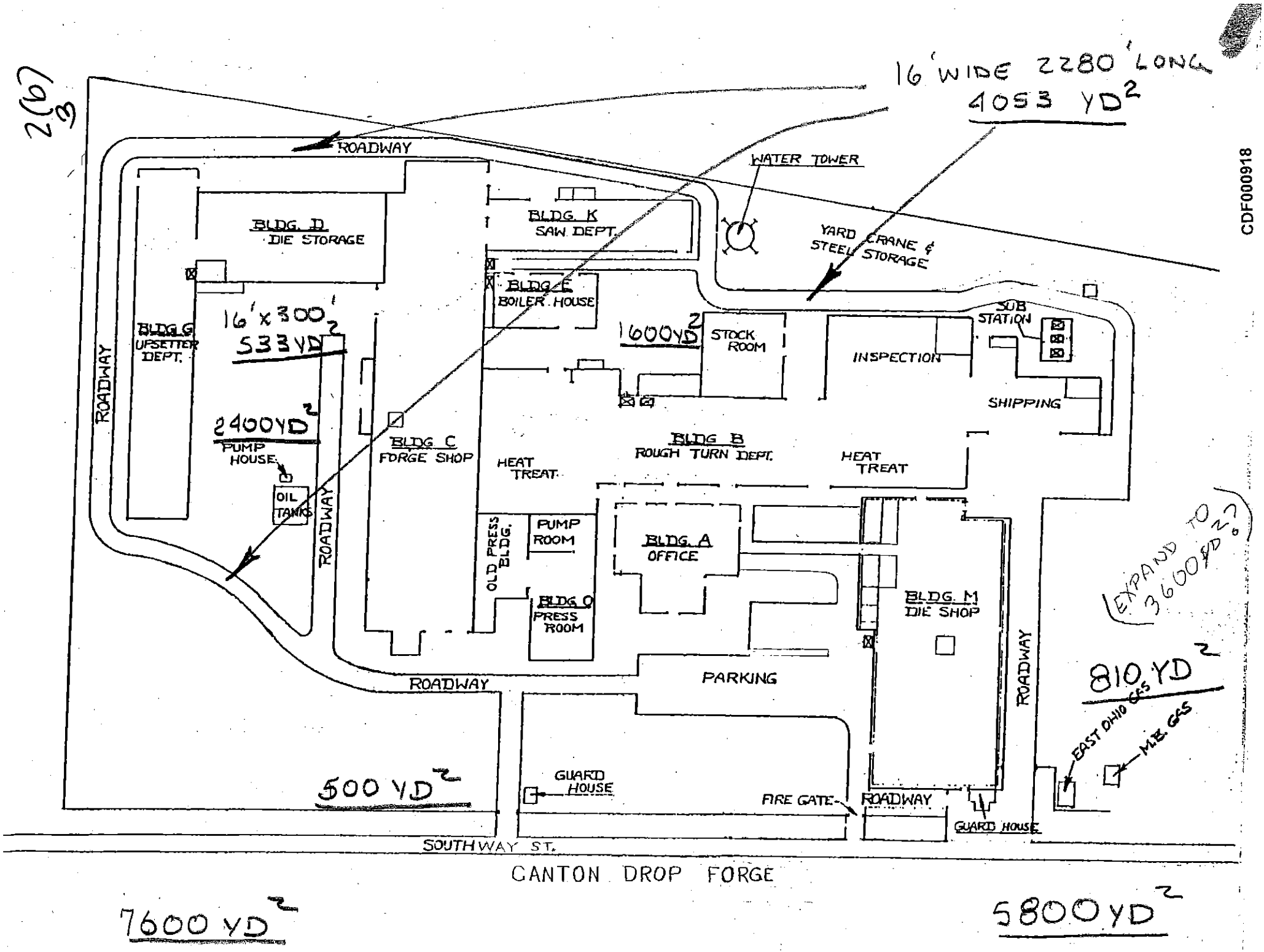
Petro Environmental Technologies, Inc. certifies under penalty of law that these statements are true, accurate and complete.

_____

Eric C. Mather, President

Date: _____

PETRO environmental technologies


2(67)
3
16' WIDE 2280' LONG
4053 YD²
ROADWAY
WATER TOWER
BLDG. D
DIE STORAGE
BLDG. K
SAW DEPT.
YARD CRANE & STEEL STORAGE
BLDG. E
BOILER HOUSE
BLDG. G
UPSETTER DEPT.
16'x300'
533 YD²
1600 YD²
STOCK ROOM
SUB STATION
INSPECTION
SHIPPING
2400 YD²
PUMP HOUSE
OIL TANK
BLDG. C
FORGE SHOP
HEAT TREAT
BLDG. B
ROUGH TURN DEPT.
HEAT TREAT
OLD PRESS BLDG.
PUMP ROOM
BLDG. A
OFFICE
BLDG. O
PRESS ROOM
BLDG. M
DIE SHOP
EXPAND TO 3600 SQ FT
ROADWAY
PARKING
810 YD²
EAST OHIO GAS
M.E. GAS
500 YD²
GUARD HOUSE
FIRE GATE
ROADWAY
GUARD HOUSE
SOUTHWAY ST.
CANTON DROP FORGE
7600 YD²
5800 YD²
CDF000918

ZURN Hydromechanics Div.

2(b)
3

6

TOO MUCH FINES
HOT 40% MORE 3-4" THICK
COLD IS SOFT FOR A LONGER TIME

SEAL COAT 75¢/SQ YD - CHIP SEAL

2½" MIX #57 STONE 3-3.50/SQ YD

4" THICK MIX #3.5-#4.00/SQ YD

131,000 sqft = 14556 SQ YD
X 4 #/SQ YD
#58224 4" THICK COLD MIX
40% MORE
#81,514 4" THICK HOT MIX

J. CURTISS & ASSOCIATES
524 Parkway View Drive
Pittsburgh, PA 15205
Phone: 412/788-1550
Fax: 412/788-1555

ZURN Hydromechanics Div.

2(b)
3

MARK - CANTON ASPHALT Co
HOT PRODUCT
EPA ISSUE - HYDROCARBONS

AKRON PAVING - LOUDER MICK, JACK
405 MIX
ON SITE - BRING
HAVE LIME STONE
CHIP & SEAL
RUBBER TIRED ROLLERS
330 - 688 - 4749 FAX 330 688-4419
COLD PROCESS WILL COME DOWN IN MAY

MR HUMPHREY
6/27 ↑ SAID HE WILL BE DOWN WITHIN 2 WEEKS

OHIO TAR
EPA WILL SHUT DOWN PUG MILL (1 HOUR)
NO WAY
NO BODY HAS THEM ANY MORE

57-67 LIMESTONE
1" TO 3/4"
FINES ARE A PROBLEM
WATER EMULSION

JACK WILL STOP ON 7/28
TO SEE MATERIAL

ACS INDUSTRIES DIO
HUSTON TX
1-800-231 0077
4-5 T/SEC

CENTRIFUGAL
WILL NOT WORK

J. CURTISS & ASSOCIATES
524 Parkway View Drive
Pittsburgh, PA 15205
Phone: 412/788-1550
Fax: 412/788-1555

ED Smith

3 o'clock
Sam

2(b)
3

1
2
3

19.3
43500
41496

SOUTH EAST LOT 1.952 200' x 405'
SOUTH WEST LOT 1.954 200' x 425'

NS

NE LOT	90 x 81	7,290	
SE LOT	150 x 345	51,750	81,000
SW LOT	180 x 390 - 40 x 60	67,800	85,000
NW LOT	90 x 48	4,320	
		131,160 SQ ft	

6" THICK = 65580 = 2428 YD
8" THICK = 87440 3239 YD

POND #1 FILL PER GENE = 8000 YD 8/2/96

LEACHABILITY - Am. Analytical 8/2/96
418.1 INFRARED, TPH, ALL HYDROCARBONS
8015 G.C WILL SEE GAS & DIESEL ONLY NOT LONG CHAIN
TCLP - Semivol & Volatiles

11/95

CDF000921

2(b)
3

6

DID

MEETING LAST FRIDAY SUMMARY

NEED w/ CRITTER

WHAT IS IN CONTRACT TO ACHIEVE

HOW TO DO, HOW OFTEN

THEY PLANNED

THEY MAINT. RESPONSIBLE

* CAP WORK
* GO w/ MIXING
* CALL TOBY FOR CO2 PROCESS
* # ON RISK ANALYSIS 1-2 WEEKS TO TOBY

4050 TON

70,000 FOR DEANZA TO DIC #2 POND

161,200

10,000 LANDER

100 # 322,000 TOTAL FOR ALL TO LANDFILL

8

2(b)
3

Bio Alternatives

Assume

3000 YARD OF MATERIAL

$3000\ YD^3 \times \frac{27\ ft^3}{YD^3} \times \frac{100\#}{ft^3} \times \frac{1\ TON}{2000\#} = 4050\ TON$

TOTAL PROJECT 9000 YD = 12,150 TON

LANDFILL

$19.90\ \frac{\#}{TON} \times 12{,}150\ TON = \#241{,}785$

12,150 TON $\times \frac{1\ TRUCK}{25\ TON} = 486$ TRUCKS

LOAD $\frac{1\ TRUCK}{15\ min} \times \frac{480\ min}{DAY} = \frac{32\ TRUCK}{DAY}$! 15 DAYS

LOADER

$15\ DAYS \times \frac{8\ HR}{DAY} \times \frac{\$80}{HR} = \$9600$

TOTAL FOR LANDFILL $\#251{,}385$

PETRO (OFFSITE BIO CELL)

LOAD, TRUCK & TREAT

$28\ \frac{\#}{TON} \times 12{,}150\ TON = \$340{,}200$

WE LOAD

$26\ \frac{\#}{TON} \times 12{,}150\ TON = 315900 + 9600 = \$325{,}500$

Bio Alternatives Page 2 of 2

Use for Pond #1 Fill

Profile & Risk Analysis Pond #1 Mat'l	$12,000
" " " Pond #2 "	$12,000
Transport Mat'l, Pond #1 to Pond #1 ~~$5.80/cy~~	$17,400
Remove Pond #2 Mat'l. $5.50/cy	$33,000
Transport " " to Cell $5.80/cy	$34,800
Transport " " to Pond #1 $5.80/cy	$34,800
Partial Pond #1 Biorem.	
Critter Settlement	$,
3 Applications of Micross (7,500)	$22,500
8 ~~Months~~ Weeks Turning (750)	$6,000
Partial Pond #2 Bio Rem.	
5 Applications of Micross (7,500)	$37,500
20 weeks turning (750)	$15,000
	$225,000 +

Credit for Pond #1 Fill

9000 YD^3 x $5/YD (15.75) $18,000

Use for Parking Lot Base

Jack Loudermilk of Akron Paving looked at mat'l on 7/29/96 & took a sample for review. Loudermilk's first reaction was that w/ little treatment it would be a good base material.

Keith 7/30/96

2(b)
3

Memo to Jerry
Date 7/25
From Keith H
Subject Enviro for Board

1. Per McCabe cost of Risk Analysis including Bio Profile (to detect microb. activity, interferances & assurance this designed bug will work) would be 11-$12,000

2. Loudermick from Heron Paving will stop on Sunday 7/28 to see the Bio-cell. The guards are expecting him. He will call Monday to tell me if cold process will work.

3. Pond #1 Fill, ~~Drain~~ Line & New Outlet $195,940 estimated by Geno Hill

	Beaver	McCabe
4. Cap Well	600-$1000	800
Pull & Fill Well (Tremmie)		1800
Screen, Shield, Dike, Drain	$6-8/ton Can't Do (too wet) $150-300 clean up	21,000
Bio Stuff Out & Mix ($85-100/hr x 3 days)	<$3,000	8-10,000
Aeration Weekly (Dozer-Disk Harrow)	$1000-2,000	$750/wk

Spike tooth harrow 10-12-14" Cat #1 3 point hitch our tractor

CDF000925

5. DEADLINE FOR TITLE V IS 9/30/96
DRAFT REPORT FROM EQ DUE 8/26/96

6.

Case History

2(b)
3

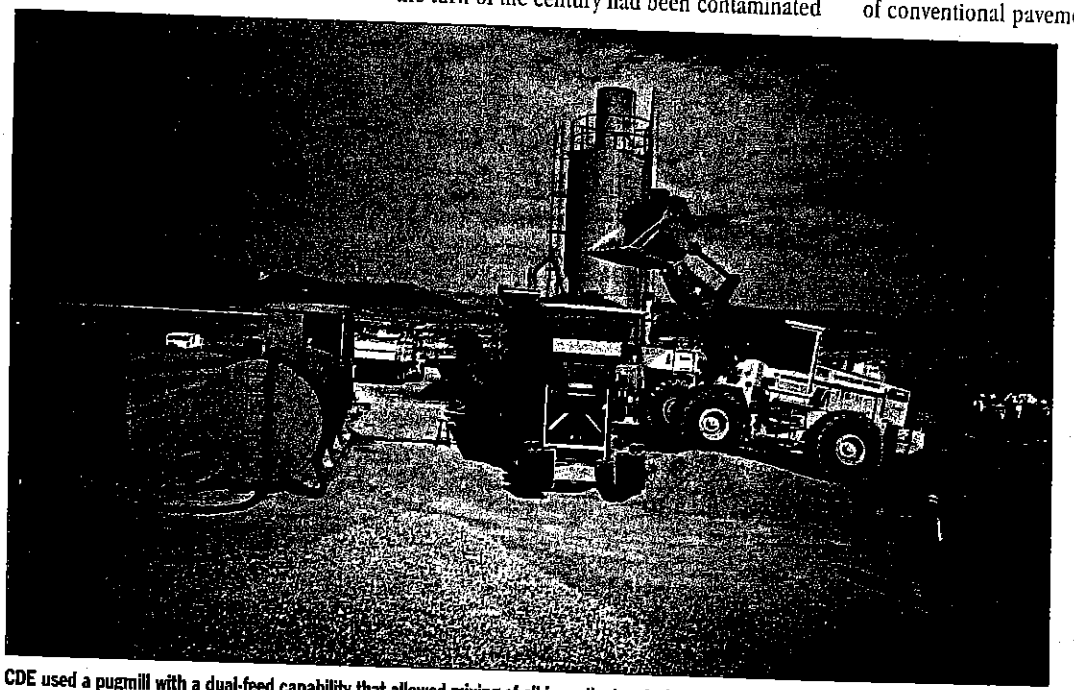
Turning Hydrocarbon Contaminated Soils into an Asset

Gordon Dickson
Cunningham-Davis Environmental

Bioremediation and thermal desorption firms offer the ability to remove pollutants from hydrocarbon contaminated soil, but the price is often high and the project can take many months to complete. An attractive option for some sites—such as when a site is being redeveloped—is to create a capital improvement at the time of the remediation and offset the cost.

Problem

A maintenance terminal and locomotive repair shop in San Bernadino, CA, built before the turn of the century had been contaminated for years with fuel oil and diesel from former operations. Hydrocarbon contamination levels at the site, owned by Santa Fe Railroad, were as high as 100,000 parts per million (ppm) in some places and averaged 25,000 to 30,000 ppm. The railroad wanted to develop the site into a new intermodal container terminal that could withstand loading up to 100,000 pounds to accommodate rail cars, containers, overhead lifts, loaders and other operational vehicles. A conventional product design would have required construction of a 43-inch deep section of conventional pavement materials. The company's original plans called for a conventional approach of excavating and hauling the contaminated soil for off-site treatment, and backfilling the excavated areas.



CDE used a pugmill with a dual-feed capability that allowed mixing of all ingredients—hydrocarbon contaminated soil, an emulsified asphalt, aggregate and setting agents—at the hopper stage. The high-stability asphalt end-product meets criteria for prevention of leaching.

A New Solution

Investigating alternative options, engineers for the railroad proposed a method that would save on the cost of the remediation and simultaneously produce a recycled product that could be used in construction of the new facility. The selected process was developed by Cunningham-Davis

Environmental (CDE) of Corona, CA. It uses a proprietary emulsion to convert oil- and fuel-contaminated soil into a high-strength asphalt concrete. The process was employed with the following results: recovering soil for beneficial reuse; avoiding cost of off-site transportation, treatment and disposal; minimizing cost for new asphalt materials; and remediating the site for about the same cost as conventional excavate and treat remediation. The cost avoidance from the use of soil as a structural material was more than 50% of the total remediation budget.

Conventional ambient-temperature technology for creating low-strength asphalt has been around for a long time. But these conventional "cold" processes have been unable to produce the high-strength pavement needed for some applications, such as the intermodal terminal yard.

CDE analyzed the impacted soils and designed a pavement that would make use of as much of the excavated soil as possible and provide a stability equal to or greater than conventional hot mix structures. CDE's technology includes using soil and standard aggregate materials in various proportions, mixed with a proprietary water-based emulsifying agent and setting agents.

On the Marshall Stability Scale, conventional cold process asphalt technology typically yields pavement with a stability of less than 2,000 pounds. Marshall's strength specification for the intermodal railyard pavement was 3,500 pounds.

CDE's technology yields pavement with stability consistently higher than 3,000 pounds and typically reaching the 5,000- to 7,000-pound range. The high stability achieved with the design mix for the Santa Fe project allowed for reducing the total depth of the pavement. Instead of a 43-inch structure, the pavement was built with a 12-inch sub-pavement layer of the CDE soil-modified-asphalt and a 7-inch wearing course or top layer of conventional hot mix asphalt.

Besides meeting engineering standards, the material clearly had to pass environmental standards. This included reducing the hydrocarbon contaminant leachability to below regulatory standards. The emulsifying and setting agents create a chemical mix which absorbs and binds the hydrocarbon pollutants into the asphalt matrix. The end product is a non-leachable asphalt concrete. Leaching tests conducted per California STLC tests on the post-treatment material resulted in non-detect for all constituents of concern.

Besides its unique emulsifying technology, CDE has developed a technique for developing engineered mixes that has allowed them to work more quickly and efficiently for their customers. While CDE uses asphalt mixes it designs and tests in the lab, the company found that the pugmills they selected for the job actually mixed the materials in the field better than the lab mixers. The Santa Fe remediation job required a pugmill with dual hoppers, two liquid injection ports and a dry feed system. The system also required a silo, to store and feed aggregate as needed to meet the specific mix designs.

The system used to meet these specs was the Kolberg Model 52S pugmill from Portec Construction Equipment Division. Its dual hopper allowed CDE to blend the excavated soil with aggregate at the hopper stage, then add the emulsifier and setting agents in the pugmill. The unit has 40 variable and reversible speed paddles permitting more thorough mixing.

On this remediation project, the pugmill processed an average of 380 to 420 tons per hour (tph) of total materials, or as much as 300 tph of soil—a much higher rate than the 5 to 40 tph range typical of most thermal desorption processes.

The finished asphalt product produced by CDE seldom results in more than a 25% volume increase from the original soil; thus, the CDE end-product asphalt pavement is about 75% to 80% soil. By comparison, most asphalt incorporation processes increase the end-product volume from 50% to 100%, ending up with only 50% to 66% soil.

In San Bernadino, CDE's final mix was comprised of about 75% soil, 19% aggregate and 6% emulsifier and binder. The high percentage of soil in the composition allowed for the use of all the remediated soil—about 100,000 tons—on site in the construction of the rail terminal pavement.

For more information, contact the author at Cunningham-Davis Environmental, 1691 Jenks Drive, Corona, CA 91720; phone (800) 813-2222.

Reader Rating. Please circle the appropriate number on the Reader Service Card to indicate your level of interest in this article/topic.
High **284** *Medium* **285** *Low* **286**

An asphalt mix comprised of about 75% hydrocarbon contaminated soil is laid as a sub-pavement at Santa Fe's new intermodal railyard in San Bernadino.

Canton

CANTON DROP FORGE

2(6)
3

TELECOPIER COVER SHEET

PLEASE DELIVER THE FOLLOWING PAGES TO:

NAME: JACK LOUDERMILK

FIRM:

CITY:

PHONE: ( ) FAX: ( )

FROM:

NAME: KEITH HOUSKNECHT

FIRM: CANTON DROP FORGE

CITY: Canton, OH

TOTAL NUMBER OF PAGES 4 INCLUDING COVER SHEET.

WE ARE TRANSMITTING ON THE FOLLOWING:

DATE: 7/29/96

TIME: 11:45

IF YOU DO NOT RECEIVE ALL PAGES - PLEASE CALL BACK AS SOON AS POSSIBLE.

TELEPHONE: **(330)** 477-4511, EXT. 180

==========

JACK

STILL VERY INTERESTED IN HAVING YOU VISIT OUR SITE.

SAW THIS INFO ON FRI 7/26/96 - - - VERY INTERESTING.

CDF000930

4575 Southway Street S.W. • P.O. Box 6902 • Canton, Ohio 44706-0902 • (216) 477-4511 • FAX (216) 477-2046

2(b)
3

760 RANDER - C&D MATL
$35,820 BEAVER 95-1 CONTRACT
2,049 BEAVER TURNING THE CELL
FEE'S TO MATT YACKSHAW
FEE'S TO CHRIS FROEMAN
FEE'S TO RICK ZOLLINGER
FEE'S TO ED KARKALIK (PARSONS ENG.)
FEE'S TO HAMMOND TREE
LOAD 1.10 #/YD³
LANDFILL 26.90 #/YD³ (INCL. TRUCK)
~~TRUCK~~
2921 CUYD IN CELL
414 CUYD (2" × 7453 YD²)
292 CUYD (+10% OVERAGE)
3627 CUYD TOTAL

LOAD 3627 YD³ × 1.10 #/YD³ = #3,990
(80 #/HR BEAVER)

LANDFILL & TRUCK 3627 YD³ × 26.90 #/YD³ = #97,566
(19.90 #/TON RANDER 8/96)

$101,556 SUB TOTAL #101,556

KEITH
1/28/97

2(b)
3

THE BEAVER EXCAVATING COMPANY

August 7, 1996

RECEIVED
AUG 8 1996
CANTON DROP FORGE

Canton Drop Forge
4575 Southway St. S.W.
Canton, Ohio 44706

Re; REFILL BIOCELL #1

Attn: Keith Housekneght

Gentlemen:

We are pleased to quote the following:

1.) Import approximately 3,000 cy of off-site soils and place in the bottom of pond #1.

3,000 cy @ $ 9.80/cy = $ 29,400.00

2.) Undercut 3,000 cy from the parking lot across the street and place this material in the bottom of pond #1. Then excavate the bioremediated material and place it and spread it on the same parking lot.

3,000 cy @ $ 12.75/cy = $ 38,250.00

3.) Excavate the bioremediated material and place it in the bottom of pond #1.

3,000 cy @ $6.90/cy = $ 20,700.00

If you have any questions or need additional information please feel free to contact this office.

Sincerely;
The Beaver Excavating Co.

Theodore H. Wellman
Project Manager

4650 Southway S.W. • P.O. Box 6059 • Canton, Ohio 44706
216 478-2151 FAX 216 478-2122

OUR NEW AREA CODE IS 330

Parameter	3745-81-11(B) Ohio Primary Maximum Contaminant Levels (Drinking Water (Standards, or DWS) mg/L	Nontoxic Criteria = 30x Standard mg/L
Arsenic	0.05	1.5
Barium	2.00	60.0
Cadmium	0.005	0.15
Chromium	0.1	3.0
Lead	0.05**	1.5
Mercury	0.002	0.06
Selenium	0.05	*

* For a bottom ash, fly ash or spent foundry sand to be considered nontoxic, the selenium concentration in the leachate may not exceed 1 mg/L.
** This is an action level, not a primary maximum contaminant level. For purposes of this policy, this number will be referenced as a drinking water standard (DWS).

In addition, spent foundry sand leachate (generated by a water extraction of the sand, in accordance with the testing procedures described in this policy) shall not contain:

phenol exceeding 10.5 mg/L
cyanide exceeding 0.6 mg/L
fluoride exceeding 12.0 mg/L

The term "nontoxic" is used only to refer directly to these three wastes (when the leachate meets this criteria).

2. "Beneficial Use" means the environmentally sound and technically feasible use of waste materials as products or raw materials in lieu of a competing product or raw material in accordance with the conditions outlined in this policy or in accordance with conditions specified by the Ohio EPA. Beneficial use is not disposal and does not normally require a permit to use the material from the Ohio Environmental Protection Agency. Beneficial use status does not provide exemption from permit to install requirements for installation or operation of waste disposal systems. Beneficial use status does not provide exemption from permit to drill or permit to operate requirements for installation or operation of underground injection control wells. The term does not include valley fills (filling low areas of land for any purposes, e.g. flood control, unplanned but potential future development, aesthetic reasons, etc., other than what is defined by this policy as a beneficial use), or the use of waste covered by this policy to fill open pits from coal or industrial mineral mining.

3 tests

McCABE CORPORATION ENGINEERING & CONTRACTING

DATE: 29 July 1996

TO: Mr. Keith Houseknecht
Canton Drop Forge
4575 Southway St., S.W.
Canton, Ohio 44706

FROM: Randy Farneth
Corporate Accounts Manager

SUBJ: Regaining Control of Your Sludge Remediation Project

Thank you for the opportunity to meet with you and visit the site as you attempt to regain control of the sludge remediation project. Our specific proposal and corresponding pricing addresses your request of Friday, 26 July, wherein you plan to present a funds request to the Board of Directors on Tuesday, 30 July that will allow you to institute a corrective plan of action for materials from Lagoon 1 and will lead to future remediation of sludges in Lagoon 2.

Specific to site stabilization, debris screening and monitoring well decommissioning, our proposal incorporates an engineered approach to biocell design and drainage, including establishing a grid system to accomodate sample collection and site monitoring.

With respect to the project intoto, we firmly believe that your interests as project administrator and the interests of Canton Drop Forge are best served by employing the construction services, engineering/technical expertise, environmental remediation background and project oversight capability of McCabe Contracting. The benefits to dealing with one firm that possesses multidiscipline capability for the duration of this project will prove beneficial as you regain control of the site through compliance with regulatory precedent, proper cell construction, management of the biodegradation process, site maintenance, collection/interpretation of site data, and final disposition of materials.

Addressing your specific request, monitoring well decommissioning will be handled in one of two optional fashions. Option I calls for excavating the perimeter of the well to a depth of six feet, removal of the first 5½' of casing, and infusion of nonshrinking grout into the casing. Option II calls for the simultaneous infusion of grout through the well casing while extracting the casing. In both cases, originally-excavated material will be placed in the excavation cavity and the area regraded.

13633 McCRACKEN ROAD • GARFIELD HTS., OHIO 44125 • (216) 526-4200

The second job task associated with your request calls for stabilizing the material in the northeast quadrant of the existing biopile and removal of those items of rock and debris throughout the biopile that might interfere with future tilling required by the biodegradation/volatilization process.

Once this is completed, two rectangular biocells will be created, with each cell approximately 400' X 100'. An accessway will run between the two cells, parallel to their long dimension. Each biocell will be divided into four (4) 100' X 100' grid, thereby establishing a total of eight (8) 100' X 100' grids, each containing approximately 375 cubic yards of lagoon sludge.

The biocells will be graded to accomodate the collection and conveyance of liquids to Lagoon 2. Likewise, the biocells will be diked to prevent runoff and potential contamination of contiguous surface area. This design will accomodate ease of access for maintenance of the bioremediation process and ease of access for equipment used to till the material undergoing remediation.

PRICING

MONITORING WELL DECOMMISSIONING

Option I: Costs associated with Option I are estimated at $ 970.00

Option II: Costs associated with Option II are estimated at 1875.00

SITE STABILIZATION, DEBRIS REMOVAL, CELL CONSTRUCTION

Costs associated with site stabilization, removal and stockpiling of rocks and debris that might prevent soils tilling and site inoculation/maintenance, creation of the biocells with excess liquids drainage and proper diking is estimated at $17,050.00

MATERIALS TILLING

Costs associated with weekly tilling of materials to enhance the degradation process are estimated at $ 750.00/wk

Tilling will continue on a weekly basis or on a schedule determined in concert with Canton Drop Forge, with pricing reviewed accordingly

CDF000935

BIOTREATABILITY EVALUATION

As we discussed, it may be in your best interests to have McCabe Contracting conduct a biotreatability evaluation that would provide you with: (1) nutrient status information, (2) biological activity data, (3) pH status information, (4) respirometry data, (5) GC Mass Spec analysis, and (6) an initial risk evaluation. This would lead to confirmation of the viability of the biodegradation process intended for the site or would lead to the development of an alternative technical approach that will result in the most cost effective remedial solution for you and Canton Drop Forge.

The cost to perform this biotreatability evaluation is estimated at $ 12,000.00

We thank you for this opportunity to be of value to you and to Canton Drop Forge. We plan to follow uo on this proposal subsequent to your meeting with the Board of Directors so that you can implement your plan at your earliest convenience.

Respectfully,

Randy Farneth

Randy Farneth

CDF000936

ZURN Hydromechanics Div.

JERRY
RICK
KEITH

2(b)
3

BIO OPTIONS

ASPHAULT
HOT
COLD WEEK OF 6/24 VISIT
LAND FILL 400,000 8,000 CU/YD 24
OFFSITE BIO COIL
ON SITE BIO
PEROXIDE ? McCABE MAY BE ABLE TO USE
GO AHEAD AND GET BOWER IN
CONTROL SAMPLE
* DATE THAT KELCHNER BID THE BIO REMEDIATION TO RICK
RANDY
WILL BUGS EAT EACH OTHER
SHALL WE GET BOWER IN
CAN YOU GIVE US BUGS
CAN WE USE PEROXIDE
KPO, TO EQ FOR TITLE V DO 6/13/96 ✓
* REPORT TO RICK ON BIO DIRECTION
* BUG COUNT FOR REPORT ON POND # / ASKED FOR DATE ON 6/13
* # FOR MINIMUM ~~OIL SEPARATOR~~
* DATE FOR SO_2 MODEL COMPLETION TO RICK & JERRY
* WORKMAN & JULY 25TH 10:00 FOLLOWING WEEK WORKMAN & JERRY MEETING

JULY 30TH BOARD MEETING

J. CURTISS & ASSOCIATES
524 Parkway View Drive
Pittsburgh, PA 15205
Phone: 412/788-1550
Fax: 412/788-1555

ZURN Hydromechanics Div.

PER ANDREW DETKUN

EPA ALLOWS 1200 TPH FOR UST PROGRAM WHEN NO RESIDENTIAL AREAS ARE CLOSE & NO WELLS ETC.

ANDREW WILL BE PREPARING A PROPOSAL BASED ON USING OUR MATERIAL FOR ASPHALT STOCK THIS WILL LIKELY GO THRU HAMMONTON

J. CURTISS & ASSOCIATES
524 Parkway View Drive
Pittsburgh, PA 15205
Phone: 412/788-1550
Fax: 412/788-1555

MVTI Environmental Solutions

2(b)
3

MVTechnologies, Inc.
2855 W. Market St., Suite 214
Akron, Ohio 44333-4034

e-mail: mvti@aol.com
internet at http://members.aol.com/mvti/mvti.html

(330) 864-7450
Fax (330) 864-8136

October 2, 1996

RECEIVED
OCT 8 1996
CANTON DROP FORGE

Sent by fax to 330-477-2046

Mr. Keith Houseknecht, Manager
Plant Engineering
Canton Drop Forge
4575 Southway Street S.W.
P.O. Box 6902
Canton, OH 44706

Dear Mr. Houseknecht:

Thank you once again for the opportunity to submit the following proposal for a suitability study for soil recycling at Canton Drop Forge.

Transforming petroleum contaminated soils into Asphalt Stabilized Road Base (ASRB) can save money and reduce long term "cradle to grave liability" as imposed by the Resource Conservation and Recovery Act (RCRA). ASRB can provide the generator with the an option of reducing the liability of having a solid waste while providing a needful and useful product for the site. In this case, part of the waste stream generated at your facility can be recycled into the ASRB! This technology is time tested and typically is less expensive than landfill disposal.

MVTechnologies, Inc (MVTI) recommends that a Performance Evaluation Test (PET) be performed on the hydrocarbon contaminated soil to determine its suitability for use in asphalt recycling. The testing and resulting analytical data generated by the PET are intended for four specific and significant reasons:

1) To identify and quantify the contamination the contamination in the soil to be recycled to insure that it meets OEPA approval. (The analytical portion has already been completed by Summit Environmental).

2) To determine the level of extractable contaminants in the recycled material so that utilization of the recycled material does not result in the pollution of the waters of the State of Ohio.

3) To verify that the cold-mix recycling process has been effective in stabilizing the contaminants in the soil so that the recycled materials may be reused in the commercial market or at the site of generation without deed recordation, and to demonstrate the acceptability of the recycled material for the proposed end.

4) Establish contaminated soil recycling rate, time and cost.

All recycled materials will be tested to demonstrate that they will meet the appropriate engineering specifications for grain size, moisture content, Plasticity Index (PI), Liquid Limit (LL), California Bearing Ratio (CBR), Flow and/or Marshall Strength. In addition a full TCLP (Volatiles, Semivolatiles, Metals) analysis and a TPH analysis of the recycled materials and the TCLP leachate will be performed on two samples, one before and one after compaction.

MVTI estimates that it will take approximately two months for completion of the study and issuance of the report to the client.

Fees for all services, including test design and set up, sampling, analytical analyses, and report, will be $4,500.00. This fee will be payable in two equal installments upon invoicing from MVTI.

Thank you again for considering MVTI for this project.

Sincerely,

Andrew A. Deikun, C.E.I.

GH10026

CC: Gene Hill

BRING POG MIX ON SITE
#25-#45/TON APPROX PLACED

ZURN Hydromechanics Div.

2(b)
3

BUD EVANS
STARK EQUIPMENT
499-5454
ROTOVATOR
8" MAX
BUD SAYS
6" MAX - SPIKE TOOTH HARROW
8" MAX - DISIC HARROW
CALL BUB ON 8/26/96

~~6000 CLASS~~
~~FIRE EXT. 2~~
~~ABC - COMMERCIAL 1-20#~~
~~- CO2 1-20#~~
~~1/2 DRUM~~
~~W/ GUARD~~
9=

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Pittsburgh, PA 15205
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Fax: 412/788-1555